

REMARKS

This responds to the Office Action dated March 11, 2003, applicant respectfully requests reconsideration of the application in view of the following remarks.

In paragraph 3 of the Office Action, claims 1-35 and 38-50 were rejected under 35 U.S.C. § 103 (a) as being unpatentable over U.S. patent #6,356,864 to Foltz et al. ("Foltz") in view of U.S. patent #5,987,302 to Driscoll et al. ("Driscoll"). It is respectfully submitted that pending claims 1-35 and 38-51 distinguish patentably from the combined teachings of Foltz and Driscoll for at least the following reasons.

Foltz discloses a method of evaluating an essay using data matrix analysis. The method first constructs a data matrix based on a plurality of sample or reference articles. Each cell of the data matrix contains the number of times a particular text object appears in a text segment. The method then applies a weighted value to each cell value. Singular value decomposition is next applied to the data matrix to decompose the data matrix into three trained matrices. Vector-representations of one or more standard texts and the ungraded essay are generated using the three trained matrices and the degree of similarity between the ungraded essay and the standard texts are computed as the cosine between their vector representations. See figures 2-7 and col. 2, ln. 66--col. 4 ln. 2 of the specification. In other words, Foltz only teaches generating a vector representation of a text object and computing the similarity between the generated vector representation and one or more standard vector representations as vector cosines. Foltz does not teach, disclose, or even suggest identifying, transmitting, or receiving missed terms that are present in the standard texts or related to the essay topic but are not present in the essay.

Driscoll discloses an on-lone essay evaluation system comprising one or more readers for evaluating the user's essay in accordance with calibrated grading guidelines and a

feedback system for providing the user with the result of the evaluation. In Driscoll's system, a reader can refer to information regarding scoring the particular essay such as guidelines for scoring the essay and sample response with the scores that were assigned to each. See claim 1 and col. 12, ln. 13--ln. 19 of the specification. Driscoll only teaches generating scores (not missing terms) according to scoring guidelines and providing the user with the score via a feedback system. Driscoll, like Foltz, does not teach, disclose, or even suggest identifying, transmitting, or receiving missed terms that are present in the standard texts or related to the essay topic but are not present in the essay.

By contrast, pending independent claims 1, 22, 29, 46, 47 and 50 expressly require identifying, transmitting, or receiving missed terms that are present in the standard texts or related to the essay topic but are not present in the essay. Pending independent claims 13, 38, 48 and 49 expressly require software code to identify, transmit, or receive missed terms.

Accordingly, it is respectfully submitted that pending independent claims 1, 13, 22, 29, 38 and 46-50 distinguish patentably from the combined teachings of Foltz and Driscoll, since these claims expressly require identifying, transmitting, or receiving missed terms that are present in the standard texts but are not present in the essay or code to identify, transmit, or receive missed terms.

Pending claims 2-12, 14-21, 23-28, 30-35 and 39-45 depend from independent claims 1, 13, 22, 29 and 38, respectively. These dependent claims are also believed patentable because not only of their dependency from an independent claim, but also of the features recited within them.

In paragraph 4 of the Office Action, claim 36 was rejected under 35 U.S.C. § 103 (a) as being unpatentable over U.S. patent #6,356,864 to Foltz et al. ("Foltz") in view of U.S. patent #5,987,302 to Driscoll et al. ("Driscoll"), still further in view of U.S. patent #6,366,759 to Burstein et al. ("Burstein"). It is respectfully submitted that pending claim 36

distinguish patentably from the combined teachings of Foltz, Driscoll and Bernstein for at least the following reasons.

Burstein discloses methods for evaluating the syntactic and rhetorical structures of an essay. In analyzing the syntactic structure, all sentences of the essay are first syntactically parsed into a table. A vector of syntactic counts is then formed based on the syntactic variety of the sentences. See Fig. 1 and col. 4, ln. 10-ln. 61 of the specification. In evaluating the Rhetorical structure, the essay is first partitioned into argument units. Relevant clue words and terms are then identified using a specialized dictionary (lexicon) and a vector of rhetorical feature counts is developed based on the identified clue words. See Fig. 1 and col. 5, ln 46-col. 6, ln 58 of the specification. Burstein also discloses method for performing content vector analysis and argument-content vector analysis on essays. These methods comprise the step of generating a weighted vector characterization of the essay or arguments of the essay and computing a cosine correlation between the weighted vector with the weighted vector characterization of a class of documents. See col. 7, ln 31-col. 8, ln 59 of the specification. In other words, Burstein only teaches computing cosines of vector representations of essays. Burstein, like Foltz and Driscoll, does not teach, disclose, or even suggest identifying, transmitting, or receiving missed terms that are related to the essay topic but are not present in the essay.

Accordingly, it is respectfully submitted that pending dependent claim 36 distinguishes patentably from the combined teachings of Foltz, Driscoll and Bernstein, since claim 36 depends from independent claim 29 and claim 29 expressly require receiving missed terms that are related to the essay topic but are not present in the essay.

In paragraph 5 of the Office Action, claim 37 was rejected under 35 U.S.C. § 103 (a) as being unpatentable over U.S. patent #6,356,864 to Foltz et al. ("Foltz") in view of U.S. patent #5,987,302 to Driscoll et al. ("Driscoll"), still further in view of U.S. patent

#6,366,759 to Burstein et al. ("Burstein"), still further in view of U.S. patent #4,705,479 to Maron ("Maron"). It is respectfully submitted that pending claim 37 distinguish patentably from the combined teachings of Foltz, Driscoll, Berstein and Maron for at least the following reasons.

Maron discloses a system for using a computer to grade answers to problems that have numerical answers. In Maron's system, each student participant is given a unique identification code. Each student is also given a set of parameter-selectable problems. Upon entering the identification code, the parameters in the problems are replaced by numbers corresponding to the identification code and correct answer to the problem are loaded into the memory of the computer. The student can then enter his or her answers into the computer and the computer then grades the student-entered answers based on the correct answers. See col. 5, ln. 8-col. 6, ln. 27 of the specification. In other words, Maron only teaches grading numerical answers. Maron, like Foltz, Driscoll and Burstein, still does not teach, disclose, or even suggest identifying, transmitting, or receiving missed terms that are related to the essay topic but are not present in the essay.

Accordingly, it is respectfully submitted that pending dependent claim 37 distinguishes patentably from the combined teachings of Foltz, Driscoll, Berstein and Maron, since claim 37 depends from independent claim 29 and claim 29 expressly require receiving missed terms that are related to the essay topic but are not present in the essay.

In paragraph 6 of the Office Action, claim 51 was rejected under 35 U.S.C. § 103 (a) as being unpatentable over U.S. patent #6,356,864 to Foltz et al. ("Foltz") in view of U.S. patent #5,987,302 to Driscoll et al. ("Driscoll"), still further in view of U.S. patent #4,705,479 to Maron ("Maron"). It is respectfully submitted that pending claim 51 distinguish patentably from the combined teachings of Foltz, Driscoll and Maron because these references do teach, disclose, or even suggest receiving a list of missed terms, said

missed terms being those terms which are related to said essay question but were not present in the essay that was drafted and submitted. By contrast, claim 51 depends from independent claim 50 and claim 50 expressly require receiving a list of missed terms, said missed terms being those terms which are related to said essay question but were not present in the essay that was drafted and submitted.




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CONCLUSION

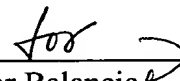
In light of the above, it is respectfully submitted that the present application is in condition for allowance. Favorable disposition is respectfully requested. Should the Examiner have any questions or comments concerning this submission, or any aspect of the application, the Examiner is respectfully invited to call the undersigned at the phone number listed below.

No fee other than the time-extension fee is believed due at this time. Should any fees be required, please charge such fees to Pennie & Edmonds LLP Account No. 16-1150.

Respectfully submitted,

 Reg. 51,794

Dated: September 15, 2003

 31,231
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